

## Contributions to the Flora of the Sierra de Perijá, Venezuela. I

Stephen S. Tillett

Herbario Dr. Victor Manuel Ovalles (MYF), Facultad de  
Farmacia, Universidad Central de Venezuela, Caracas.

The following material was collected <sup>(1)</sup>, while accompanying an expedition of the Dirección de Fronteras del Ministerio de Relaciones Exteriores, of the Venezuelan Government, in the Sierra de Perijá, in the State of Zulia, along the international boundary with Colombia. A brief ecological description is given immediately below for each of the general localities, (indicated by underlining), since these are the first collections from the sites at those altitudes, except at 'Campamento Frontera I'. Not included are entities found by previous collectors (Ginés, Steyermark) at lower altitudes.

### Serranía de Los Motilones, Distrito Perijá

Environs of 'Campamento Frontera I', (Lat. 09°50'47.5" N, Long. 72°57'18.6" W), headwaters of the Río Tocuco; steep-sided ridge with deep humus, on siltstone and limestone, with dense evergreen forest 30-40 m tall, with considerable **Chusquea** and more **Olyra?** (to 5 m tall); the N-facing slope gentler and with a semi-deciduous forest 20-25 m tall; small patches of scrub-savanna (probably burned) on ridge; 1900-2000 m elevation; 24 to 26 June 1974.

Environs of 'Campamento Frontera II', (Lat. 10°00'13" N, Long. 72°58'ca.25" W), mesa below international border on main ridge; headwaters of the Río Negro; main ridge mostly of horizontal red sandstones and grey conglomerates, the lateral rolling ridges and more level areas with a very thin soil on a variety of silty, sandy, or gravelly substrates, varying from near-white to red-purple, and in many areas with rampant erosion due to recent fires; the more level areas covered with an **Hypericum**-scrub 1-2 m tall (of 3-4 species), which has been burned off several times, with grasses and sedges, especially in the swales and around shallow ponds; a páramo or supáramo vegetation, in part from burning; the steeper and wetter quebradas have remnants of the once more dominant forest 10-15 m tall, with innumerable downfall and standing dead trunks, largely invaded by bamboo; the area was apparently ungrazed as of the time of collection; ca. 3000 m elevation; the temperature during the visit varied from 0° to 15° C; 27 June to 5 July 1974.

### Serranía de Valledupar, Distrito Perijá

Along international boundary, from 'Hacienda Buenavista', (Lat.

10°20'ca.23" N, Long. 72°54'ca.14" W), to N side of 'Cerro Laminado' (ca. 5 km N of 'H.B. '); headwaters of Río Apón; broad, steep-sided, limestone and conglomerate ridgetops, covered with very thin soil, repeatedly burned and sadly overgrazed, a "bambusillo" to 1 m tall dominant in most of the area; many swales, rivulets, and somewhat marshy areas; 'Cerro Laminado' rising from the main ridge as a long E - W mesa of horizontally bedded red sandstone, equally overgrazed; remains of forest in the lower, steep-sided quebradas, below 3200 m; 3300-3650 m elev.; 9 to 10 July 1974.

Environs of 'Campamento Frontera V', (Lat. 10°23'07.8" N, Long. 72°52'42.5" W), headwaters of the Río Guasare, on the main 'maletero' trail from Manaure, Colombia; the whole area severely burned over in the previous ten years, and overgrazed, being changed from a nearly complete cover of forest to a grass savanna, much of the soil highly eroded and with a high proportion of charcoal; very steep limestone ridges, but with very little exposed rock; some small vernal pools, and the gentler quebradas with sedges and grasses, the main quebradas very steep-sided, and forested; 2700-3300 m elevation; 10 to 19 July 1974.

#### Serranía de Valledupar, Distrito Maracaibo

'Monte Viruela', (Lat. 10°25'ca.13" N, Long. 72°52'ca.42" W), a tepuí-like massif, 5 x 2.5 km, on the international boundary, covered with areas of highly eroded limestone, crevasse areas, cliffs, and funnel-shaped sinkholes; drainage all subterranean; soil brownish-black, rather impervious, to 2 dm deep; the natural vegetation of low forest (to 10m), Hypericum-scrub (to 2 m), and areas of wet and dry meadows, with much mounding of Sphagnum (to 5-6 dm) around bases of shrubs and 'bambusillo'; entirely burned over in early 1974 save for small patches of forest, and almost all of the Hypericum (1 sp.) killed; a great abundance of grasses due to the complete absence of cattle to that date; in general little flowering of woody plants during the visit; temperatures from 3-12° C, with much fog, rain, and occasional hail; ca. 3100 m elevation; 21 to 28 July 1974.

### Onagraceae

#### Fuchsia spp. aff. venusta and jahnii

Tillett & Hönig 746-678, 746-705, 747-766, 'Campamento Frontera II'; Tillett 747-1033, 747-1086, 'Campamento Frontera V'; Tillett 747-1175, 'Monte Viruela'. Known previously in Venezuela from the states of Mérida and Táchira.

#### Oenothera seifrizii Munz

Tillett & Hönig 746-760, 'Campamento Frontera II'; Tillett 747-1138, 'Monte Viruela'. Known previously only from the Sierra Nevada de Santa Marta, in Colombia.

## Umbelliferae

**Azorella cuatrecasasii** Math. & Const.

Tillett & Hönig 746-626, 'Campamento Frontera II'; Tillett 747-1250, 'Monte Viruela'. New to Venezuela; known previously only from northern Colombia, the Sierra Nevada de Santa Marta.

**Azorella aff. cuatrecasasii** Math. & Const.

Tillett 747-1249, 'Monte Viruela'. New to Venezuela.

**Daucus montanus** Humb. & Bonpl. ex Spreng.

Tillett & Hönig 746-714, 'Campamento Frontera II'; Tillett 747-1150, 'Monte Viruela'. Known previously in Venezuela from the states of Mérida, Falcón, Aragua, Distrito Federal, and Monagas.

**Eryngium humboldtii** Delar. f.

Tillett & Hönig 746-602, 'Campamento Frontera II'. Known previously in Venezuela from the Sierra Nevada de Los Andes, in the states of Apure, Táchira, and Mérida, and in the Cordilleras Central and Oriental of Colombia.

**Hydrocotyle domingense** Math. & Const.

Tillett & Hönig 747-803, 'Campamento Frontera II'. Known previously in Venezuela from the state of Mérida.

**Hydrocotyle grossulariaefolia** Rusby

Tillett 747-1036, 'Campamento Frontera V'. New to Venezuela, formerly from Ecuador to Colombia.

**Neonelsonia acuminata** (Benth.) Coult. & Rose

Tillett & Hönig 747-836, 'Campamento Frontera II'. New to Venezuela, previously from Perú to Colombia.

**Niphogeton colombiana** Math. & Const.

Tillett 1164, 'Monte Viruela'. New to Venezuela; known previously from the Sierra Nevada de Santa Marta, in Colombia.

**Perissocoeleum phylloideum** (Math. & Const.) Math. & Const.

(*Prionosciadium phylloideum* Math. & Const.)

Tillett & Hönig 746-601, 'Campamento Frontera II'; Tillett 747-1125, 'Monte Viruela'. New to Venezuela; type locality on the Colombian side of the Sierra de Perijá.

**Perissocoeleum purdiei** Math. & Const

Tillett 747-1148, 'Monte Viruela'. Known previously only from the Sierra Nevada de Santa Marta, in Colombia.

- (1) Collections made while employed by the Instituto Botánico, Ministerio de Agricultura y Cría, Caracas, Venezuela.
- (2) I wish to express my sincere appreciation to Drs. Lincoln Constance Mildred Mathias, and Peter Raven, and to Paul Berry, for their collaboration in the identification of this material.